



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/401,439	09/22/1999	USAMA M. FAYYAD	1018.057US1	4688

7590

01/11/2006

Microsoft Corporation
Patent Group Docketing
One Microsoft Way
Redmond, WA 98052

EXAMINER

TARAE, CATHERINE MICHELLE

ART UNIT	PAPER NUMBER
----------	--------------

3623

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/401,439

Applicant(s)

FAYYAD ET AL.

Examiner

C. Michelle Tarae

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6,7,10-13,15-17,19,20 and 58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6,7,10-13,15-17,19,20 and 58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a Final Office Action in response to the communication received on September 30, 2005. Claims 1 and 58 have been amended. Claims 1, 6, 7, 10-13, 15-17, 19, 20 and 58 are now pending in this application.

Response to Amendment

2. Applicant's amendments to claims 1 and 58 are acknowledged.

Response to Arguments

3. Applicant's arguments have been fully considered but are not found persuasive.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. In the Remarks, Applicant merely summarizes the present invention and then summarizes the cited reference, but does not point out any specific claim language that is patentably distinct from the cited reference.

Additionally, in Applicant's summarization of the present invention, it appears that Applicant focuses on the idea that various features of the present invention occur in real-time. However, the recitation of anything occurring in real-time is not expressly recited in the claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Art Unit: 3623

Accordingly, Applicant's arguments have been fully considered, but are found unpersuasive.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 6, 7, 10-13, 15-17, 19, 20 and 58 are rejected under 35 U.S.C. 102(e) as being anticipated by Sheppard (U.S. 6,026,397).

As per claims 1 and 58, Sheppard discloses a method for managing a marketing campaign and machine-readable medium having instructions stored thereon for execution by a processor to perform a method, comprising:

providing a data mining engine capable of being trained with training data and capable thereafter of performing inferences relative to the training data and on additional data (col. 5, lines 34-39; col. 13, lines 14-26; The system provides a neural clustering function, which is a data mining engine capable of being trained with training data, to perform inferences associated with the training data.);

providing a user database containing the observed characteristics of each one of a set of users, the characteristics comprising at least one of: (a) at least one of the

user's attributes, (b) at least one of the user's preferences (col. 4, lines 43-47; col. 5, line 67-col. 6, line 5; Figure 1; The system analyzes a customer database that includes demographic and lifestyle data.);

training the data mining engine with a set of training data comprising the user database by clustering the user database into different segments of users distinguished by different states of one or more characteristics (col. 8, lines 5-13 and 34-41; col. 12, lines 21-26; col. 14, lines 9-26; The system uses a rule-based segmentation function to segment the user database according to various characteristics (i.e., married and non-married segments).);

inputting to the data mining engine a predetermined set of characteristics including a predetermined set of user attributes likely to pertain to a product to which the marketing campaign is directed and, in response thereto, obtaining from the data mining engine a subset of the users in the database having the highest correlation to the characteristic by determining which of the segments found during clustering of the user database has the highest statistical correlation to the predetermined set of characteristics (col. 14, lines 9-26; col. 18, lines 5-16; The system uses the neural clustering function to obtain a subset of users having a statistically significant correlation to a characteristic.);

determining in the data mining engine a set of prevalent attributes of the subset of users (col. 18, lines 10-16; The neural clustering function determines prevalent attributes of a subset of users having a statistically significant correlation to a characteristic.);

defining a target database of users and determining in the data mining engine a target subset of users in the target database statistically correlated to the set of prevalent attributes (col. 14, lines 9-26; col. 18, lines 5-16);

conducting a presently conducted marketing campaign cycle directed at the target subset of users and observing responses of the target subset of users to the presently conducted marketing campaign cycle (col. 20, lines 32-50; The system learns from observing actual responses of current customers being targeted by a marketing campaign. In other words, the users' responses are observed while a marketing campaign is occurring. The observed responses may then be stored in a database to predict future responses.);

forming a focused group of the target subset of users whose observed response was a particular type of response (col. 20, lines 32-50; Users from marketing campaigns can be grouped based on observed responses.);

determining, in the data mining engine, a group of prevalent characteristics of the focused group of users (col. 20, lines 32-50; The observed responses (i.e., characteristics) are stored in a database for analysis and to predict future customer responses.); and

defining a database to be mined and determining, in the data mining engine, a new set of users in the database to be mined whose characteristics are statistically correlated with the group of prevalent characteristics (col. 13, line 65-col. 14, line 26; col. 18, lines 5-16; The system uses the neural clustering function to obtain a subset of

users having a statistically significant correlation to a characteristic. User subsets can be refined multiple times.).

As per claim 6, Sheppard discloses the method of claim 1 wherein the target database comprises the user database with which the data mining engine has been trained (col. 4, lines 43-47; col. 5, line 67-col. 6, line 5; Figure 1; The system analyzes a customer database that includes demographic and lifestyle data.).

As per claim 7, Sheppard discloses the method of claim 1 wherein the target database comprises an additional database not included in the user database, the additional database defining characteristics of a set of new users (col. 5, line 65-col. 6, line 14; The system can conduct analyses on multiple databases.).

As per claim 10, Sheppard discloses the method of claim 1 wherein the database to be mined comprises the user database with which the data mining engine was trained (col. 4, lines 43-47; col. 5, line 67-col. 6, line 5; Figure 1).

As per claim 11, Sheppard discloses the method of claim 1 wherein the database to be mined comprises the target database of users (col. 4, lines 43-47; col. 5, line 67-col. 6, line 5; col. 13, line 65-col. 14, line 7).

As per claim 12, Sheppard discloses the method of claim 1 wherein the database to be mined comprises a new database not included in either the user database or in the target user database (col. 5, line 65-col. 6, line 14; col. 13, line 65-col. 14, line 7; The system can conduct analyses on multiple databases and further, has the ability to continuously refine user sets, thus creating new user databases with which to analyze.).

Art Unit: 3623

As per claim 13, Sheppard discloses the method of claim 1 further comprising: directing a subsequent marketing campaign cycle to the new set of users (col. 13, line 65-col. 14, line 7; col. 20, lines 32-50).

As per claim 15, Sheppard discloses the method of claim 1 wherein the user preference corresponds to a prior purchase of a product which is a subject of the marketing campaign (col. 2, lines 34-38; col. 20, lines 32-50).

As per claim 16, Sheppard discloses the method of claim 1 further comprising: determining, in the data mining engine, a complete set of statistically prevalent user attributes of the subset of users (col. 5, lines 33-45; col. 14, lines 9-26; col. 18, lines 5-16; The system uses the neural clustering function to obtain a subset of users having a statistically significant correlation to a characteristic.);

for any member of the subset of users having certain attributes which are undetermined in the user data base, filling in the certain undetermined attributes with the corresponding ones of the complete set of statistically prevalent user attributes of the subset of users (col. 16, lines 5-25; col. 17, lines 10-38; The system normalizes the parameters to offset data that is too dominant or too weak. The system also creates default values for fields in the database.).

As per claim 17, Sheppard discloses the method of claim 1 further comprising: for any member of the target subset of users having certain attributes which are undetermined, filling in the certain undetermined attributes with the corresponding ones of the set of prevalent user attributes of the subset of users (col. 16, lines 5-25; col. 17,

lines 10-38; The system normalizes the parameters to offset data that is too dominant or too weak. The system also creates default values for fields in the database.).

As per claim 19, Sheppard discloses the method of claim 1 wherein clustering comprises: providing with a visualization tool a tabulation of characteristics of each user group with the probability of each characteristic in the cluster (col. 9, lines 9-11 and 15-25; col. 10, lines 10-36; Figure 4; The system creates "bins" of segmented users and creates histograms that provides visual statistical information relating to the bins.);

labeling each cluster with a statistically predominant characteristic thereof in accordance with the tabulation (col. 10, lines 2-9).

As per claim 20, Sheppard discloses the method of claim 19 wherein the statistically predominant characteristic of each cluster distinguishes the cluster from the other clusters (col. 13, lines 18-26; col. 14, lines 9-26; The groups are segmented according to statistically prevalent characteristics that are different from cluster to cluster.).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the


Art Unit: 3623


shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Michelle Tarae (formerly, C. Michelle Colon) whose telephone number is 571-272-6727. The examiner can normally be reached Monday – Friday from 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached at 571-272-6729.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


cmt
January 7, 2006


TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 9300